



Process Technology, Inc.

Process Technology, Inc. Delivers Automated Silo Level Measurement Solution

OBJECTIVE

To increase measurement accuracy and reduce the risk of injury by eliminating the twice daily need to climb to the top of 60' silos to measure the level of perlite.

CHALLENGE

Old and non-functioning cable fed level devices require an operator to take manual measurements twice a day from the top of (4) 60' silos. This is a potentially dangerous measurement as the weather conditions could present a slip and fall, as well as the hazard and exposure to harsh elements.

The measurement data needs to be logged twice a day for inventory purposes and a local display for filling or drawing material is necessary for the drivers and operators.

APPROACH

Siemens SITRANS LR560 Radar Level Transmitter is a "Rockstar" in dusty tough solids level applications. The LR560 2-wire, 78 GHz FMCW radar level transmitter continuously monitors solids in the silos to a range of 100 m (328 ft). With plug and play performance, it is ideal for perlite applications, including those with extreme dust and high temperatures to +200 °C (+392 °F).

Red Lion 10" Graphite HMI with analog I/O card and terminal strip for incoming power has preprogrammed HMI scaled to match radar scaling for dependable data logging and communication capabilities.

A **Red Lion** module is preprogrammed to (4) **Siemens** transmitters to provide level measurement for each silo, along with accurate data logged and displayed for operators and drivers.

Process Automation ROI

The largest gain in automating outdoor top of silo level measurements with reliable products is eliminating the need to climb to the top of the silos twice a day to retrieve a level measurement. This process allows for constant and accurate silo monitoring with a significant reduction in risk of injury and optimizes work time.



"Safely and accurately measuring the level of raw and processed perlite, a very dusty low dielectric mineral, is a daily requirement for our customer, Imerys Perlite USA in Green River, WY.



With the assistance of our engineering team, the technology from (2) leading instrument and technology manufacturers were combined for a solution that can be applied at several Imerys Perlite USA plants to address silo level monitoring challenges."

- Roger Smith
PTI Sales Engineer - UT/WY



Siemens and Red Lion devices are compatible to provide a cost-effective and accurate automated silo level measurement solution, mitigating the risk involved with a twice daily task